1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

'35 *Lime.*—The most prevalent rock in Ladák is limestone. In Spiti, the whole formation is of this rock, excepting near Losar, where it changes into clay slate. It forms the range that divides Rukchu from Zanskar, and again changes into clay slate near the junction of the Sum-gyel rivers.

It pervades Zanskar, and is found on both banks of the Indus; in the Photo Lá and Hánu passes. It occurs at both ends of the Pangkong lake, and extends from Sassar to the crest of the Kárákoram range. Notwithstanding this general prevalence of the rock, the scarcity of wood is so great that none but the wealthy can afford to use lime mortar in their houses.

Marble.—For ornamental purposes none of the Ladáki limestones that I have seen would be considered of any value;* but the fossiliferous limestone of Kashmir takes a very high polish, and the splendid pillars of the Shálimar are the only beautiful things now remaining in that once celebrated garden.

Gypsum.—This useful mineral is found at the sulphur-mines, on the banks of the Puga rivulet, either in pure white flakes regularly disposed, or in a compact rock, with crystals of sulphur attached to it, and thin veins of nearly pure sulphur desseminated through it. It occurs also on the right bank of the Spiti river, below Losar, at the celebrated cave of Amaranáth, in Kashmir, and on the banks of the Shigar river, in Balti.† No use whatever is made of it by the people.

Clay.—Extensive deposits of the finest clays of all

* Mir Izzet Ullah, however, mentions a striped marble-like Sulimáni stone as occurring in the bed of the Shayok river, between Chong-Ulang and Dong-Bailák.—Quart. Orient. Magazine, 1825, p. 113.

† See Vigne's map for Gypsum.

waist to the calf and then tight to the ankle. The women's garments are of two patterns, the one called "potdur" or "botdur" and the other "sulma." The former are wide and short, coming only down to the calf, where they are tucked inside a piece of felt worn like a gaiter. The latter are like the garments seen in India, loose from waist to knee, and then very tight and very long, lying in folds from the calf down to the ankle. Among the Buddhists of Ladák, a woman wears these garments of white patoo till she gives birth to a child, after which, she wears them of black patoo. Among the ArGHóns* of Ladak, a woman wears white patoo trousers only till she is married, after which she wears black. 291 851 563 585

(14)BRICK--páoo, this is the general term; it would be understood to mean the common sun-dried brick, which is made, not of clay, but of earth without the admixture of straw or any other binding substance. "Kaktsey páoo' is red or burnt brick, made of clay. These are seldom used, for owing to scarcity of wood they are expensive, and the rainfall in Ladák is so slight, that sun-dried bricks do very well. Once in 8 or 10 years heavy rain falls, and when this happens, nearly every house in the town of Leh becomes unfit for habitation, as the sun-dried bricks can't stand wet. 333 [132]

BRICK-LAYER--rtsiksPon. As a matter of fact, in Ladák, the carpenters are the brick-layers. 463

BRIDE--pakma or pakmo. A woman in Ladák may become a bride at any age after 10. The usual age, both among Buddhists and Arghons* is from 14 to 18 years. Beauty in a bride is not much sought after among the Buddhists as they think beautiful brides are apt to become troublesome wives. The best bride is she who has the most property and is the best able to look after it. See also "Wife". 581 582 563

BRIDEGROOM--These are of two classes. Pakpho is the term for "bridegroom" as understood by Europeans. His age is usually from 14 to 20 years. Although the younger brothers of a bridegroom are entitled to share their eldest brother's wife, so long as they live under the same roof, they never figure as bridegrooms, and they take no part in the marriage ceremony. 582 590 585

*[Half-caste Mohammedans--Analyst]

a certain load. For this reason the trunks are not made into square beams so that they will not become too weak to support the roof. 342

Then the tiles were formed from the loamy soil, such as is to be found nearby--a product of the decomposition of limestone and granite--in the glacial deposits of the valley. The "tile moulders" placed the tiles upright on their sides on the ground in rows /124/ The sun, which in these heights (3, 300 meters), with their clear, thin air free of vapors, shines very hot as early as May and exerts its heating effect unhampered, can in a few days dry and bake these "air tiles" in such a way that they produce walls, which in the dry air of those highlands can last for centuries. For the burning of tiles there is no fuel in the practically woodless country. The Tibetan potter must laboriously gather the necessary shrubs in order to bake his pots and jugs. 342 333 323

The ground, consisting of moraine deposits on which the entire village stood, was dug without difficulty to the depth of about half a meter. Then came the "bricklayers," that is to say, the farmers who knew a little more about bricklaying than the others. The foundation walls were constructed of rough, scarcely hewn stones up to a height of about half a meter above the ground. On top of this foundation wall was put a thin layer of planks; with such a plank layer the wall is also covered at the top. Loamy soil serves as mortar. It is true that there are entire mountain ranges consisting of lime nearby, but for lack of fuel no lime can be baked.

A wooden roof is an impossibility, due to the lack of suitable building wood. The ceiling beams are placed blunt and without joints on the upper plank layer of the wall at distances of about half a meter. For larger rooms a stronger main beam is placed in the middle, and from this beam weaker beams are placed at right angles on both sides towards the walls. On top of these are placed, close together, strong, straight, peeled osier sticks which have been cut to an even length. On top of this is placed a layer of any kind of shrubs or weeds, such as the region may provide. On top of this layer they put wet loamy soil which they then trample down. The roof is divided into several fields with a slight incline towards the edge of the roof, so that the rain water is conducted into the outer corners and can drain off through short wooden gutters. 342

The house has two stories which internally are connected by means of stairs made of rough stones. A ladder consisting of a beam into which the carpenter has cut indentations as steps /125/, leads from the upper story on to the flat topmost roof of the house. The